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William S Parks Milliken & Company P O Box 1927 (M-495) 920 Milliken Road Spartanburg, SC 29304		EXAMINER SINGH, ARTI R		
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**Please find below and/or attached an Office communication concerning this application or proceeding.**

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**BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES**

Application Number: 09/557,643  
Filing Date: April 25, 2000  
Appellant(s): LI, SHULONG

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Mr. John Vick  
For Appellant

**EXAMINER'S ANSWER**

This is in response to the appeal brief filed 06/25/07 appealing from the Office action mailed 02/26/07.

**(1) Real Party in Interest**

A statement identifying by name the real party in interest is contained in the brief.

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

**(3) Status of Claims**

The statement of the status of claims contained in the brief is correct.

**(4) Status of Amendments After Final**

No amendment after final has been filed.

**(5) Summary of Claimed Subject Matter**

The summary of claimed subject matter contained in the brief is correct.

**(6) Grounds of Rejection to be Reviewed on Appeal**

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

**(7) Claims Appendix**

The copy of the appealed claims contained in the Appendix to the brief is correct.

**(8) Evidence Relied Upon**

6,239,046	VEIGA et al.	05-2001
5,989,660	MORIWAKI et al.	11-1999
5,863,068	BREED et al.	01-1999

**(9) Grounds of Rejection**

The following ground(s) of rejection are applicable to the appealed claims:

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-3, 8-11, and 16-17 are rejected under 35 U.S.C. 102(e) as being anticipated by or in the alternative under 35 USC 103 (a) as obvious over VEIGA et al. (USPN 6,239,046).

Veiga et al. teach a coated textile fabric for use in an airbag (air curtain- column 1, line 28 & column 2, line 34, which is also synonymous in the art as a side curtain, as it is positioned laterally to the occupant) having a plurality of polymeric layers coated thereto (column 1, lines 5-10). The fabric, being a woven, knit or nonwoven textile, which is first coated with a polyurethane layer, and then coated with a layer of elastomeric polysiloxane (column 1, lines 50-55). The polyurethane coating weight applied is about 0.3-ounces/square yards to about 1.5-ounces/square yards with 0.5-ounces/square yards preferred (column 1, lines 57-59). In an alternative embodiment as shown in column 3, lines 39-50, the fabric may

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be coated on both sides with a polyurethane coating which is similar in its composition and physical properties to the first polyurethane layer. With regard to Applicant's claims, the required coating of both the polyurethane layers at the most would add up to 1.5 ounces per sq. yd + 0.5 oz. per sq. yd = 2.0 oz. per sq. yd (Patent Claims 22 & 23). Thus, Veiga et al. teach a side impact air bag having at least one layer of a polyurethane coating wherein the coating has an add-on weight of at least 0.3 to a bout 2.5 ounces/ square yards. The composite may be laminated on both sides with polyurethane coatings.

Veiga et al. disclose what is set forth above, however Veiga et al. fail to disclose or do not explicitly teach the claimed airbag having the leak down time after inflation nor the elongation at break. However it is reasonable to presume that the said featured properties are inherent to Veiga et al. Support for said presumption is found in the use of like materials i.e. a side airbag coated with polyurethane coating system having an add-on weight of at most 3.0 oz/yd<sup>2</sup>, which would result in having this property. The burden is shifted to Applicant to prove otherwise. In re Fitzgerald 205 USPQ 495. Alternatively, the presently claimed properties of the leak down time after inflation nor the elongation at break would obviously have been present, along with the tensile strength, once the Veiga product was provided. See In re Best, 195 USPQ 433.

Claims 1-17 are rejected under 35 U.S.C. 102(e) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over USPN 5,989,660 to Moriwaki et al.

Moriwaki et al. discloses a fabric for use in an airbag comprising a fibrous substrate having adhered to it a covering layer made of a thermoplastic synthetic resin (abstract). The fibrous substrate or fabric used by patentee can be a woven, knitted or nonwoven fabric formed from polyamide fibers (column 2, lines 33-36). The fibers that make up the fabric

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have a denier of 200-500 (column 3, lines 8-10) and a cover factor of 1700 to 2500 denier (column 2, line 10). The fibrous substrate can be woven from polyamide fibers of nylon 6,6 (column 2, lines 33-35), wherein the monofilaments are 6 g/denier or more (column 2, line 65). The synthetic thermoplastic resin that forms said covering layer is found to be equivalent to Applicant's film layer, and may be polyurethane, polyester, polyamide, acrylic polymer, polyethylene or polypropylene, of which polyurethane and polyester are the most preferred (column 3, lines 20-25). The average thickness of the synthetic thermoplastic film formed on the surface of the woven substrate is 10 microns or less, which when converted equals 0.393 mils, and thus meets the limitations which require the film thickness to be from 0.1 to about 3.5 mils thick.

The air bag produced using such a base fabric for air bags can be used as an air bag, for example, for a driver's seat, an air bag for a front passenger's seat, an air bag for a rear seat or an air bag for expansion from a position laterally of an occupant of a seat (column 4, lines 31-39).

Moriwaki et al. disclose what is set forth above, but fail to disclose or explicitly teach the claimed airbag having the leak down time after inflation nor the elongation at break properties. However it is the Examiner's position that it is reasonable to presume that the said featured properties are inherent to Moriwaki et al. Support for said presumption is found in the use of like materials i.e. a side airbag coated with polyurethane coating system having an add-on weight of at most 3.0 oz/yd<sup>2</sup>, which would result in having this property. The burden is shifted to Applicant to prove otherwise. In re Fitzgerald 205 USPQ 495. Alternatively, the presently claimed properties of the leak down time after inflation nor the elongation at break would obviously have been present, along with the tensile strength, once the Moriwaki product was provided. See In re Best, 195 USPQ 433.

Claims 1-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over USPN 5863068 issued to Breed et al. in view of USPN 5,989,660 to Moriwaki et al.

Breed et al. disclose inflatable occupant restraint devices wherein the airbags are composites made up of films or fabric/films. The films may be laminated on to the fabric and are pre made (column 10). Said films may be polyurethanes. In column 5, the instant patent states that the film on film airbags have a thickness of 250 micrometers. In columns 19 and 20, patentee discloses that when a fabric is used the thickness is further reduced, and this reduction is compensated by the film layer, and further teaches that the thickness can be modified as needed. Therefore, a skilled artisan at the time the invention was made would have found it obvious to have reduced the thickness of the film layer in the airbag composite, motivated by the reasoned expectation of fitting the side cushion airbag into its housing.

Breed et al. fail to teach the specifics of the their fabric layer. This is remedied by Moriwaki, who teaches an airbag comprising a fibrous substrate having adhered to it a covering layer made of a thermoplastic synthetic resin (abstract). The fibrous substrate or fabric used by patentee can be a woven, knitted or nonwoven fabric formed from polyamide fibers (column 2, lines 33-36). The fibers that make up the fabric have a denier of 200-500 (column 3, lines 8-10) and a cover factor of 1700 to 2500 denier (column 2, line 10). The fibrous substrate can be woven from polyamide fibers of nylon 6,6 (column 2, lines 33-35), wherein the monofilaments are 6 g/denier or more (column 2, line 65). Therefore a person having ordinary skill in the art at the time the invention was made would have found it obvious to have used the fabric layer of Moriwaki in the airbag of Breed. One would have been motivated to do this in order to provide an airbag that has strength and durability, and could be used to produce a driver's seat, a front passenger's seat, an air bag for a rear seat or an air

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bag for expansion from a position laterally of an occupant of a seat (column 4, lines 31-39).

The combination of Breed and Moriwaki both do not explicitly teach the claimed airbag having the leak down time after inflation nor the elongation at break properties. However it is the Examiner's position that it is reasonable to presume that the said featured properties are inherent to the combination of Breed and Moriwaki. Support for said presumption is found in the use of like materials i.e. a side airbag coated with polyurethane coating system, which would result in having this property. The burden is shifted to Applicant to prove otherwise. In re Fitzgerald 205 USPQ 495. Alternatively, the presently claimed properties of the leak down time after inflation nor the elongation at break would obviously have been present, along with the tensile strength, once the Breed /Moriwaki airbag was provided. See In re Best, 195 USPQ 433.

**(10) Response to Argument**

Appellant's arguments filed in this brief have been fully considered but they are not persuasive.

Appellant's first traversal is that claims 1-3, 8-11 and 16-17 are not properly rejected under 35 U.S.C. 102 (b). This statement is incorrect as the rejection in question was a combination rejection made under 35 U.S.C. 102 (e)/103 (a) over Veiga et al (USPN 6,239,046) and not simply an anticipation rejection. Therefore, any remarks that Veiga et al. do not satisfy the rigorous standard of a 102 rejection is found to be correct, as the rejection was not a 102 but a combination rejection. Therefore, this argument is not found to be persuasive.

Appellant's next traversal (bottom of page 6 of brief) is that Veiga et al. teach a coating their composite, rather than using a film laminated product, and that the resultant properties would be different. It is the position of the Examiner that Appellants specification



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does not provide any limiting disclosure, therefore the definition of a film or coating must be given its broadest reasonable meaning. Additionally, Appellant has not shown otherwise within the specification, claims or drawings. Thus, it is the position of the Examiner that Appellant's specification does not define that a film can't be a coating or that a coating is not a film. Appellant's specification does not define a coating or a film, and therefore the usual industry known meaning of film and coatings are used. (In the most laymen of definitions such as that found in Merriam Webster's Dictionary, they define "film" as a thin covering or coating and "coating" as something that covers, both of which are met by the layer of cited art. In fact, If Appellant is choosing to define these terms then the specification must reflect the same. Further, with post processing steps of (evaporation of the solvent or heat pressing through rollers, CURING!!! etc.) or once the final product has solidified, a skilled artisan would not be able to tell the difference if a film or a coating was applied. Furthermore, in the art of coating when a thickness of a film is described it is usually done so in "mils" and not ounces per yard.

Appellant further argues that the limitation of substantially uniform is not met and that since Veiga et al coat. their fabric in a wet state and then dry it the fluid collects within the interstices of the fabric and would then be non uniform. It should be noted that these are intermediates steps of processing of making an airbag, as the final product still has not been produced. Once this pre made film is applied to the fabric and the post processing steps of heat and pressure are applied this same film, it is no longer uniform- as it was prior to be applied to the fabric layer. Once heat and pressure are applied the film would become somewhat molten and seep onto and into the interstices of the fabric thereby holding the fibers in place, thus impregnating the fabric layer to a degree. There is a difference between impregnating and saturating, even a little seepage of the film into the fabric to hold the

fibers in place would be considered penetrating into the fabric layer, and thus would not leave the film to be uniform. This same process happens when a coating is applied and then heat set. The coating too gets molten and penetrates the fabric, which locks the fibers in place and would prevent any air from leaking out. Additionally, a skilled artisan would not be able to tell whether a film or a coating was applied once the final airbag is provided. Thus, the argument is not found to be persuasive as a film once post processed would not have the same uniformity as an unprocessed pre-made film.

Appellants next traversal involves the resultant properties of leak down time after inflation, tensile strength and elongation at break, all of which were rejected under 102/103 Veiga. In rebuttal to the establishment of anticipation or prima facie case of obviousness, Applicant is picking apart the rejection. The rejection was a combination rejection of 102/103 and when a Fitzgerald/Best type of 103 rejections is applied, it is not the normal 103 rejection where a Graham V. Deere obvious determination is made. In these types of 103 rejections, the Examiner has stated that as "best we can tell, given the information available" the product of the prior art is the same as that set forth in the claims and that if there is any difference, it would be an obvious variation due to vagaries of processing conditions, different test methods etc. and that the difference would not be significant if not the same. The discovery of a previously unappreciated property of a prior art composition, or of a scientific explanation for the prior art's functioning, does not render the old composition patentable new to the discoverer." *Atlas Powder Co. v. Ireco Inc.*, 190 F.3d 1342, 1347, 51 USPQ2d 1943, 1947 (Fed. Cir. 1999). Thus the claiming of a new use, new function or unknown property, which is inherently present in the prior art, does not necessarily make the claim patentable. *In re Best*, 562 F.2d 1252, 1254, 195 USPQ 430, 433 (CCPA 1977). Additionally, a rejection made under 35 U.S.C. 102/103 can be made when the prior art product seems to be identical

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except that the prior art is silent as to an inherent characteristic, Where applicant claims a composition in terms of a function, property or characteristic and the composition of the prior art is the same as that of the claim but the function is not explicitly disclosed by the reference, the examiner may make a rejection under both 35 U.S.C. 102 and 103, expressed as a 102/103 rejection. "There is nothing inconsistent in concurrent rejections for obviousness under 35 U.S.C. 103 and for anticipation under 35 U.S.C. 102." *In re Best*, 562 F.2d 1252, 1255 n.4, 195 USPQ 430, 433 n.4 (CCPA 1977). This same rationale should also apply to product, apparatus, and process claims claimed in terms of function, property or characteristic. Therefore, a 35 U.S.C. 102/103 rejection is appropriate for these types of claims as well as for composition claims. Therefore the Examiner has met her burden of establishing the basis for this type of a rejection by showing that the composite of Veiga et al is both structurally and chemically the same and then shifted the burden to Applicant to refute that the composite of Veiga et al. would not show the properties of leak down time or elongation at break.

In fact, Applicant has not met their burden of proof to show nonequivalence. Based upon the fact that the composition claimed and that shown by the cited art are identical in composition, is not refuted by Applicant. Just because the cited reference chooses not to test using these standards doesn't mean that it doesn't exist, and thus Applicant's standpoint does not overcome the reference. The references does not have to explicitly state Applicant's desired properties, it structurally and chemically must meet Applicant's claim limitations-which it does. Applicant's arguments or conclusions are not enough to overcome the cited art or to take the place of evidence. *In re Cole*, 51 CCPA 919, 326.

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As noted above once the final product was produced the cure film or coating, which is compositionally the same, has the same weight and thickness would exhibit the properties of leak down time, elongation at break and tensile strength, as the final product is a “cured” product. Therefore, these arguments are not found to be persuasive and this rejection is maintained.

With regard to the remarks made over the rejection of Claims 1-17 being rejected under 102(e)/103(a) over MORIWAKI et al. USPN 5989660.

Appellant’s first traversal in this rejection is that each and every element as set forth in the claim has not been met, thus not anticipated. Appellant is correct in their deduction, as a combination rejection was applied. Therefore, this point is moot.

Applicant’s next traversal are essentially the same as those cited above and that they believe that the difference between a coating and a film would result in a different product with different resultant properties of leak down time, elongation at break and tensile strength. It is the position of the Examiner that the coating used by Moriwaki is not the same as Applicant’s film as it would not provide a uniform film. Please refer to the discussion in the VEIGA et al, as it is the same rationale.

Another traversal is that thickness of the coating is denoted as average thickness, alluding one to believe that the coating is not uniform. As explained above with the post processing steps, neither is Applicant’s. Therefore, this argument is not found to be persuasive and this rejection is maintained.

With regard to the remarks made over the rejection of Claims 1-17 being rejected under 103(a) over BREED et al USPN 5863068 in view of MORIWAKI et al. USPN 5989660. Applicant’s traversal is that the reference of Breed et al does not teach a side curtain airbag or that the airbag is made from a fabric/film laminate. To this the Examiner rebuts that

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Breed et al teach making all shapes of airbags, which is driver side, passenger, knee and side curtain. In fact, Applicant is directed to Figure 8 where a side curtain airbag is shown. At column 9, line 5- column 10, line 42, the instant patent teaches that many types of airbags, that is film on film, film on fabric may be formed using the components described and refers to these airbags as hybrid airbags. Under 12- in column 9, they specifically teach any desired shape formed from flat panels-this is the definition of a side curtain airbag. A side curtain airbag by definition must hold the air within and not deflate, so it not found to be convincing that Breed teaches away from side curtain airbags. Therefore, these arguments are not found to be persuasive and this rejection is maintained.

**(11) Related Proceeding(s) Appendix**

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

Arti Singh

/Arti Singh/  
Primary Patent Examiner  
Art Unit 1771  
10/01/07

Conferees:

/Terrel Morris/  
Terrel Morris  
Supervisory Patent Examiner  
Group Art Unit 1771

/Romulo Delmendo/  
Appeals Specialist